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College Quarterly

Summer 2013 - Volume 16 Number 3

Assessing Life Styles, Stressors and Health Status among a Predominantly African American On-Campus and Off-Campus Student **Population**

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Students who attend college and reside on campus often have to contend with social problems such as alcohol and drug abuse, HIV/AIDS infection, in addition to courtship, sex and marriage, home and family and other social-psychological issues while trying to maintain academically and matriculate to graduation. Earlier research from the 1995 National College Health Risk Behavior Survey [NCHRBS] suggested that many college students engage in health risk behaviors including binge drinking, cigarette smoking, drug use, and unsafe sexual practices that increase their likelihood of serious health problems (i.e., unintentional and intentional injuries, unintended pregnancy, sexually transmitted diseases, HIV infection) (Douglas, Collins, Warren, Kann, Gold, Clayton, Ross & Kolbe, 1997). As a result of this dilemma, many health professionals have focused their efforts on the study of health issues and behaviors of college students (Dinger & Parsons, 1999; Page, Scanlan & Gilbert, 1999; Perkins, Meilman, Leichfiter, Cashin & Presley, 1999; Siegel, Klein & Roghmann, 1999; Wechsler & Dowdall, 1997).

While these studies have provided valuable data about college health issues, each study has tended to emphasize a specific single set of behaviors (i.e., tobacco use, sexual practices, alcohol and drug use). Nonetheless, it is important to emphasize that any single behavior is influenced by other health risk behaviors among young people and that there is an interrelationship among multiple behaviors (e.g., substance abuse and sexual practices) (Zweig, Lindberg & McGinley, 2001). In addition, college students' perception and opinion of the health risk behaviors have an impact on the way they ultimately behave. For example, students' perceptions of alcohol and drug use on college campuses have been associated with the student's behavior (Page et al., 1999; Perkins et al., 1999). The university setting is not without its social problems as students have greater access to alcohol. Schall, Kemeny and Maltzman (1992) have noted that students enrolled at a university are pressured by their friends and live in environments with licensed establishments that legitimize and make available alcohol substances. According to Valliant & Scanlan (1996) the peer influence is a known source of reinforcements that shapes behavior. Secondary school students that enter the university setting and reside on campus in a residence hall are subjected to social norms and expectations. The purpose of this study was to conduct a baseline investigation of university students' health behaviors, self-rated

health, mental health and quality of life (QOL). The authors used a quality of life questionnaire that gauged the college student's health status, lifestyle, mental health, and living conditions.

Method

Participants

The majority of the 552 participants (81.2%) were college students between the ages of 18 and 23 years old and mostly African American (60.1%). Caucasian and Native American participants made up 24.3% and 4.3% respectively. Sixty-four percent of the sample was female. Specific to university classification, there were freshmen (51.3%), sophomores (14.3%), juniors (17.6%), seniors (11.4%), graduate students (3.6%) and (1.8%) were non-degree-seeking students. As far as living conditions, 60.1% of the college students indicated that they were living on campus, 39.9% lived off campus. Eighty-nine percent of the study samples were residents of North Carolina. Fifty-three percent of the participants were firstgeneration college students. The majority of the college students (37.7%) in this study indicated that they received student loans and support from their spouse or parents, 22.1% indicated that they received student loans and income from paid employment, 20.1% indicated that they received student loan and other sources of income and 10.1% indicated they only received student loans.

Instrument

The 30-item questionnaire used in this study was the Health Behaviors, Self-Rated Health and Quality of Life (Vaez & Laflamme, 2004), also known as the Quality of Life (QOL) survey. For this research, six additional questions that addressed sexual behaviors and drugs were created by the researchers and added to the original 30-item questionnaire. The authors of this study felt that the additional six questions could offer valuable information about the relationship of drugs and sexual behaviors as it relates to this unique group of on-campus and off-campus college students. In addition, a demographic section, which included questions related to age, sex, race, and living conditions, was added to the QOL questionnaire. Examples of health behavior variables assessed on the questionnaire included the frequency of alcohol consumed (never, once a month, 2-4 times a month, 2-3 times a week, 4 times a week or more) and, if they consumed, the typical amount of alcohol consumed on each occasion (1-2 glasses, 3-4 glasses, 5-6 glasses, 7-9 glasses, 10 glasses or more). To answer questions about cigarettes smoked, participants' response alternatives were "yes, daily," "yes, sometimes," or "no." Physical activity was assessed with a single question concerning the frequency of exercise on a 5-point scale (never, once a month, 2-4 times a month, 2-3 times a week, and 4 times a week or more). To answer questions related to life stressors over the preceding academic year, students chose between responses based on a 4-point scale (not at all stressed, slightly stressed, rather stressed, highly stressed). To answer questions related to perceived health status and quality of life, students rated their physical, psychological,

and overall *health* respectively on a 5-point scale (very good, good, neither good nor poor, poor, very poor). As a measure of psychological or psychosomatic problems, students responded to a 4-point scale (not at all, a little, quite a lot, and a lot). Three questions were "ladder questions." A ladder question typically is introduced the following way: "Here is a picture of a ladder. At the bottom of the ladder, 1 is the worst life you might reasonably expect to have, and 10 at the top is the best life you might reasonably expect to have. Indicate where on the ladder your life is right now."

According to Vaez and Laflamme (2004), this "ladder scale" is a widely recognized measure that has been demonstrated valid. To answer questions about whether participants had ever talked about HIV/AIDS infection with their parents or other adults in their family, or if they had ever been taught about HIV/AIDS infection in any of their college courses, participants' response alternatives were "yes," "no," or "not sure." To answer the question if they had ever had sexual intercourse, response alternatives were "yes" or "no." To answer questions about their use of alcohol or drugs before having sexual intercourse, and whether they had used a condom the last time they had sexual intercourse, response alternatives were "yes," "no," or "never had sexual intercourse." To answer the question about what one method they or their partner had used to prevent pregnancy the last time they had sexual intercourse, response alternatives were "have never had sexual intercourse," "no method," "birth control pills," "condom," "diaphragm or sponge," "withdrawal," "some other method," and "not sure."

Results and Discussion

The data were analyzed question by question to determine the number and percent of responses for each choice by living conditions status. A chisquare test was conducted on all data using SPSS (Statistical Package for the Social Sciences). All comparisons were made assuming an alpha = 0.05 significance level. Results from this study substantiated that there were significant differences among life styles, student life stressors and health status among college students according to their living conditions. This study also presented compelling information regarding certain types of life styles, stressors, physical and psychological problems and sexual behaviors among college students at a North Carolina university.

Life-Style Characteristics by Living Conditions

As seen in Table 1, the "Life-Style" section of the questionnaire, question 11 - if you do drink, what is the usual amount consumed on each occasion revealed a significant difference between on-campus and off-campus college students (X2 (4) = 11.696, p < .05). A larger percentage of on-campus college students (12.8 %) indicated that five or six glasses were consumed on each drinking occasion as opposed to 3.8 % of the off-campus college students. These data are incongruent from an earlier, similar study conducted by Valliant and Scanlan (1996) that indicated that a greater number of students residing off campus in houses or apartments were at risk for alcohol addiction (20 out of 21, 95%); followed by those

students residing on campus with 35 out of 45 (78%) students in the moderate or high category of risk for alcohol addiction. These authors noted that the least number of students at risk for alcohol addiction resided with their parents 7 out of 28 (61%) students in the moderate and high risk category.

It was interesting to note that Valliant and Scanlan (1996) also found when investigating male and female students residing in the three living arrangements, that male university students had a higher weekly consumption of alcohol than females. In addition, males were also found to be at greater risk for alcohol addiction. Hicks and Miller (2006) findings showed that when consuming alcohol, more female college students (21.3%) reported that one or two glasses were consumed on each drinking occasion. Only eight percent of the male college students indicated that just one or two glasses were consumed when drinking in which these findings were not reliable with the research of others when investigating male and female college students.

For question 12 – do you smoke cigarettes and question 13 – do you use illegal drugs, a larger proportion of on-campus college students (49.3% and 50.2%) responded they did not smoke cigarettes or use illegal drugs, as opposed to 30.0% and 35.2% of the off-campus college students respectively. These findings regarding on-campus college students not having an interest in smoking cigarettes and not using illegal drugs are consistent with the American College Health Association National College Health Assessment (ACHA-NCHA), Spring 2006 Reference Group Report. In this report, data were collected on college students that indicated that the following responses in reference to alcohol, tobacco, and other drug use. This research found that although 61.8% of students (n = 11,978) reported they never used cigarettes, 7.4% of students (n = 1,416) thought that the typical student never used cigarettes; whereas 17.5% of students (n = 3,388) reported never using alcohol, 1.8% of students (n = 340) thought the typical student never used alcohol. In addition, 63.7% of students (n =12,308) reported they never used marijuana; by contrast, only 15.5% of students (n = 2.973) thought the typical student never used marijuana. In contrast, a Luquis (2003) study revealed that substance use was seen as common among college students, with estimates of 80-90% of students using some type of drug. However, estimates of use were substantially lower (50-70%) when participants were asked to describe peer (i.e., friends) behaviors. Luquis noted that when asked to specify what substances students used, most agreed that alcohol, tobacco (i.e., cigarette), ecstasy, marijuana, and acid are the drugs of preference among students. Alcohol was identified as the most commonly used drug by students because of easy access and peer expectations.

Student Life Stressors Characteristics by Living Conditions

As seen in Table 2, the Student Life Stressors section of the questionnaire, a significant difference between on-campus and off-campus college students was found for question 15(e) - poor housing, (X2 (3) = 31.395, p< .001) and question 15(i) - problems with friends, (X2 (3) =

17.481, p = .001). When asked to rate the following potential sources of stress during the preceding academic year, more on-campus college students (19.3% and 23.2%) indicated that they were slightly stressed due to poor housing and problems with friends as opposed to the off-campus college students (6.4% and 10.3%) respectively. Even though not significant, similar differences were found for question $15(a) - not \ coping \ academically, 15(b) - problems \ with \ professors \ and 15(d) - poor \ finances.$ A larger percentage of on-campus college students than off-campus college students indicated that they were slightly stressed due to those problems.

For questions 15(c) – problems with roommate, 15(f) – family problems, 15(g) – not having a relationship and 15(h) – relationship problems, findings revealed that more on-campus college students responded that they were not at all stressed with these problems as opposed to the off-campus college students. These study findings between on-campus and off-campus college students were consistent with a recent study conducted on gender and student life stressors. When investigating stressors along gender lines, Hicks and Miller (2006) found that a larger percentage of female college students as opposed to male college students indicated that they were slightly stressed as a result of the following: trouble coping academically, poor finances and family problems. These findings with regard to female and male college students were consistent with other researchers. Additionally, Hudd et al. (2000) found that the majority of females (63.8%) expressed feelings of higher levels of stress. In addition, Hudd et al. noted that the vast majority (80%) of the students who did not participate in sports regularly reported high levels of stress. These findings on gender, levels of stress and exercising are consistent with the current study and quite consistent with the medical literature that suggests exercise serves to reduce stress.

Health Status Characteristics by Living Conditions

For question 17 – rate your overall self-rated physical health status and question 18 – rate your overall self-rated psychological health status, a larger proportion of on-campus college students (48.0% and 51.2%) responded on the questionnaire that their overall physical or psychological health status was very good and good as opposed to 33.4% and 34.5% of the off-campus college students respectively. A similar pattern can also be seen in the distribution of responses to question 19 – how do you rate your general state of health. A larger percentage of on-campus college students (51.1%) reported that their general state of health was very good as opposed to the off-campus college students (36.2%). Similarly, on question 20 – what do you think about your own health condition compared with that of other people of your age, 33.4% of on-campus college students indicated that their health conditions were much better or a bit better compared with that of other people of their age as opposed to 22.5% of the off-campus college students.

As seen in Table 3, a significant difference was found for question 21 (a) – experiencing difficulty in concentrating during the preceding academic year, (X2 (3) = 11.201, p< .05) and question 21(g) – experiencing poor

appetite during the preceding academic year (X2 (4) = 23.483, p< .001). More on-campus college students indicated that they experienced a slight difficulty in concentration and a penchant for a poor appetite and eating habits during the preceding academic year than the off-campus students. Though not significant, a similar pattern can also be seen in the distribution of responses to question 21(b) – experiencing irritation during the preceding academic year, 21(e) – experiencing depression during the preceding academic year, question 21(h) – experiencing headaches during the preceding academic year, and question 21(i) – experiencing upset stomach during the preceding academic year.

More on-campus college students felt that they did experience those types of psychological and psychosomatic problems during the preceding academic year as opposed to the off-campus college students. These results on this population of students, specifically on-campus college students, seem to indicate that more health and wellness programs are needed to combat these physical and psychological issues that students may have while living on campus. According to Hicks and Miller (2006), more health and wellness programs that encourage physical exercising and relaxation are needed in the academic setting. However, when investigating gender, these authors indicated that stress among college-aged females is well-documented. Hicks and Miller (2006) found that more female college students reported that they experienced more psychological and psychosomatic problems, such as irritation, depression, anxiety, headaches, and tiredness, than the male college students in this study, yet more female college students were willing to seek or ask for help than the male college students. In addition, Hudd, Dumlao, Erdmann-Sager, Murray, Phan, Soukas, & Yokozuka, (2000) findings on this population suggest that it may be useful to develop gender-specific programs targeted at reducing the general level of stress among college females.

A significant difference was found for question 28 - where on the ladder was your life one year ago, (X2 (9) = 19.473, p< .05). A larger percentage of on-campus college students (10.9%) in this study ranked their life one year ago at the 8th level (from 1-10) on the ladder as opposed to 5.6% of the off-campus college students.

As seen in Table 3, significant differences were found for question 33 – have you ever had sexual intercourse, (X2 (2) = 26.394, p< .001); question 34 – did you drink alcohol or use drugs before you had sexual intercourse the last time, (X2 (2) = 25.874, p< .001); question 35 – the last time you had sexual intercourse, did you use a condom, (X2 (2) = 37.252, p< .001); and question 36 – the last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy, (X2 (9) = 48.529, p< .001). For question 33, a larger proportion of on-campus college students (13.6%, as opposed to 2.7% of the off-campus college students) reported that they never had sexual intercourse. However, thirty-one percent of on-campus college students responded that they did use a condom the last time they had sexual intercourse as opposed to 17.5% of the off-campus. The present study findings on sexual behaviors among college students were constant

with previous research Fennell (1997) administered the National College Health Risk Behavior Survey to 996 Black and unmarried students at 8 Historically Black Colleges and Universities in seven states. In Fennell's study, 17.5% of the sample indicated that they had no sexual intercourse; 49.6% reported that they used a condom the last time they had sexual intercourse; and 41.3% of the participants responded that they or their partners used a condom to prevent pregnancy the last time they had sexual intercourse. Similarly, the American College Health Association (2005 & 2007) found that 35.3% and 37.1% of the sample respectively reported to use condoms the last time they engaged in vaginal intercourse.

One possible reason for the sexual activity differences among oncampus and off-campus college students is that on-campus students may have more frequent contacts and communicate more with peer groups in college, which may have an impact on students' thoughts and behaviors. According to Lau, Quadrel and Hartman (1990), there is substantial change in the performance of health behaviors during the first three years of college and that peers can have a strong impact on the types and magnitude of these changes. Rittenour and Booth-Butterfield (2006) indicated that some of the topics most frequently discussed by college students include birth control, condoms, sexually transmitted diseases, and resources. They also substantiated that most students feel comfortable discussing sexual healthrelated topics with their peers, with females reporting a slightly higher comfort level than males.

In this present study, although not significant, 35.8% of the on-campus college students indicated that they had talked about HIV/AIDS infection with their parents or other adults in their family as opposed to 22.9% of the off-campus. This research revealed that 34.4% of the on-campus students reported to have been taught about HIV/AIDS infection in their college courses as opposed to 23.4% of the off-campus college students.

This study indicated that over 80% of the participants had sexual intercourse, and less than half of the sample used a condom the last time they had sexual intercourse. To combat the unsafe sexual activity, the authors recommend that a comprehensive sexuality education program be provided by the surrounding community, which would examine the student's sexual values as well as sexual behaviors. Campus peer education programs, which can provide a solid knowledge base, but facilitate long-term behavior changes as well, may be an effective mechanism to deliver such information to college students.

Summary

The results of this questionnaire provided an important snapshot of the current lifestyles, college life stressors and health behaviors among oncampus and off-campus college students at an institution in North Carolina. Moreover, the findings contributed to the identification of subgroups of students at particular risk for certain types of stressors, physical and psychological problems and health issues university officials can address by implementing the appropriate interventions that are tailor-made for such

groups. This research attempted to address the gap in the literature by examining the correlation of alcohol consumption, drug usage, sexual behaviors and knowledge about HIV/AIDS infection among traditional college students attending a university in North Carolina. According to the authors, the results should be interpreted with caution. First, the uses of self -reported surveys are common in these types of studies and are considerably reliable. However, participants may distort their survey responses and may represent a source of bias. Second, although a probability sample of college students was drawn, the study included students from only one university, so special care should be taken not to generalize the findings of this study to other student populations. The findings may hold true only if the populations are similar in nature. Despite the limitations of this study, several important findings could be added to existing research on African American traditional college students. However, future researchers could look at how well self-reported alcohol, drug and sexual behaviors of traditional African-American college students and other groups are meeting the health objectives for the nation that are outlined in the Healthy People 2012 publication. Special care should be taken not to generalize the findings of this study to other student populations. The findings may hold true only if the populations are similar in nature. Therefore, it is advisable to carry out a similar longitudinal study at other institutions. Future research could look at how well the self-reported health behaviors of other groups of college students are meeting the health objectives for the nation that are outlined in the *Healthy People* 2012 publication.

Most importantly, responses to the questionnaires from on-campus and off-campus students could help determine how the life styles, physical and psychological stressors and health status of other university students living conditions compares with some of the national objectives outlined in *Healthy People* 2010. Such information is needed to assess more fully the at-risk potential of these on-campus and off-campus students that are not completing college because of health behaviors, health habits, physical and psychological problems, life styles and health status. Hicks and Miller (2006) suggest that until more accurate methods are developed to identify which students are at risk of failing and leaving college, little can be done to intervene and avoid the undesired consequences of poor academic performance and attrition that affect both students and institutions because of health issues.

As the population of college-bound students grows and competition increases, professionals in academia on both sides of the desk should keep in mind common stress patterns and at-risk demographics for these types of students. As advocates for students, those in the education field must conduct further research to accurately improve this problem in the future and to reduce more complex behavioral problems. Researching and implementing effective intervention and counseling programs will help improve the quality of life for all on campus.

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Table 1
Summary of Life-Style Characteristics by Living Conditions

Question	On-Campus	Off-Campus	
11. If you do drink, what is the usual amount consumed on each occasion?			
1-2 glasses	25.9%	% 21.5%	
3-4 glasses	15.8%	6 13.6%	
*5-6 glasses	12.8%	% 3.8%	
7-9 glasses	2.5%	% 1.9%	
10 glasses or more	1.6%	% .5%	
12. Do you smoke cigarettes?			
yes, daily	4.6%	% 5.5%	
yes, sometimes	6.4%	% 4.2%	
no	49.3%	% 30.0%	

Question	On-Campus (Off-Campus
13. Do you use illegal drugs?		
yes, daily	3.7%	1.8%
yes, sometimes	5.9%	2.9%
no	50.2%	35.2%
not applicable	.2%	.2%

Chi-square significant at * p<.05

Table 2
Summary of Student Life Stressors Characteristics by Living Conditions

Question	On-Campus	Off-Campus
15. My stress over the preceding academi following issues.	c year has bee	en based on the
a. Not coping academically slightly stressed	29.59	% 18.8%
b. Problems with professors slightly stressed	25.59	% 14.0%
c. Problems with roommate not at all stressed	d 39.49	% 24.8%
d. Poor finances slightly stressed	22.99	% 14.5%
e. Poor housing *slightly stressed	19.39	% 6.4%
f. Family problems not at all stressed	28.99	% 19.4%
g. Not having a relationship not at all stressed	d 43.59	% 28.9%
h. Relationship problems not at all stressed	30.19	% 22.0%
i. Problems with friends *slightly stressed	23.29	% 10.3%

Table 3

Chi-square significant at * p<.0

Summary of Health Status Characteristics by Living Conditions

Question	On-Campus	Off-Campus	

21. During the preceding academic year, did you experience any of the following psychological or psychosomatic problems?

a. difficulty in concentrating *a little

34.8%

23.0%

Question	On-Campus	Off-Campus
b. irritation a little	32.4%	20.9%
e. depression a little	25.2%	13.4%
f. tiredness a little	26.5%	18.7%
g. poor appetite *a little	21.8%	10.0%
h. headache a little	26.3%	18.1%
i. upset stomach a little	23.9%	13.2%
33. Have you ever had sexual intercourse?		
**no	13.6%	2.7%
34. Did you drink alcohol or use drugs before you had sexual		

34. Did you drink alcohol or use drugs before you had sexual intercourse the last time?

**never had sexual intercourse 10.9% 1.5%

35. The last time you had sexual intercourse, did you use a condom?

**yes 31.3% 17.5%

36. The last time you had sexual intercourse, what method did you or your partner use to prevent pregnancy?

**condom 24.3% 12.3%

Chi-square significant at * p<.05, ** p<.01

End note: This study was supported by Grant Number P20 MD001089 from the National Center of Minority Health and Health Disparities, National Institutes of Health. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of National Institutes of Health

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